

This listing of the claims will replace all previous versions and listings of claims in the application.

LISTING OF CLAIMS:

Claims 1 to 40 cancelled.

Claims 41 and 42 currently rewritten to make independent incorporating all of the limitations of the parent claims.

Claim 41 (Presently amended) A system for monitoring the performance of DWDM multi-wavelength systems comprising:

means for converting a portion of an optical signal from the DWDM multi-wavelength system at a particular wavelength to an electrical signal; and

means for processing the electrical signal to determine the performance of the DWDM multi-wavelength system at the particular wavelength and for controlling the converting means so that each particular wavelength and for controlling the converting means so that each particular wavelength of the DWDM multi-wavelength system is processed; and

wherein the converting means comprises:

means for mixing the optical signal with a tunable reference optical signal to produce a combined optical signal; and

a photodetector for converting the combined signal to the electrical signal.

The system as recited in claim 34

wherein the mixing means comprises:

means for dividing the optical signal and the reference optical signal each into corresponding orthogonal polarized beams; and

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means for combining the respective polarized beams of like polarization to form a pair of combined optical signals as the combined optical signal.

Claim ²~~42~~. (Presently amended) The system as recited in claim ¹~~41~~ wherein the photodetector comprises a pair of photodetectors having the respective combined polarization beams as input and providing a pair of electrical signals at the respective outputs as the electrical signal.

[Claims 43 and 44 cancelled.